

DOCKET FILE COPY ORIGINAL

ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

RECEIVED

DEC 24 1996

Federal Communications Commission
Office of Secretary

In the Matter of)

Federal-State Joint Board on)
Universal Service)

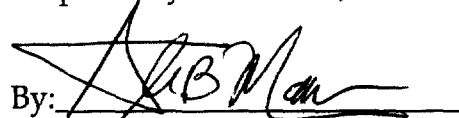
CC Docket No. 96-45

MOTION TO FILE LATE COMMENTS

Pursuant to Section 1.46(b) of the Commission's rules, 47 C.F.R. § 1.46(b), Juno Online Services, L.P. ("Juno"), by its attorneys, respectfully submits this motion for late filing of the attached comments in the captioned docket. The unexpected unavailability of Juno's senior management made it impossible for the company to review and approve these comments prior to the filing deadline. Juno has not previously participated in this proceeding, and its comments are submitted just three business days late.

The Commission's inclusion of Juno's comments in the record is in the public interest, will not prejudice interested parties and will allow the Commission to more completely examine the issues raised in the Joint Board's *Recommended Decision*. Juno has personally served Commissioners, Commission Staff, Joint Board members and the parties to this proceeding, thus ensuring that all interested parties have an adequate opportunity to assess and respond to Juno's proposals in this docket.

Respectfully Submitted,



By: Jeffrey Blumenfeld
Glenn B. Manishin
Michael D. Specht, Technical Consultant
Blumenfeld & Cohen - Technology Law Group
1615 M Street, N.W., Suite 700
Washington, D.C. 20036
202.955.6300

Dated: December 24, 1996

Counsel for Juno Online Services

No. of Copies rec'd
10/4/96

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Federal-State Joint Board on)	CC Docket No. 96-45
Universal Service)	

COMMENTS OF JUNO ONLINE SERVICES, L.P.

Juno Online Services, L.P. ("Juno"), by its attorneys, respectfully submits these comments in connection with the Recommended Decision of the Federal-State Joint Board on Universal Service (the "Joint Board").¹

INTRODUCTION

Juno is the nation's leading provider of free Internet electronic mail ("e-mail") services. Unlike traditional e-mail providers, Juno does not charge its subscribers anything for use of the service. Instead, Juno has been designed to derive its revenue principally from the display of interactive advertisements, much as broadcast television has its costs underwritten by network and local advertising. In the eight months since its national launch, Juno has grown rapidly to more than one million subscribers, making it one of the five largest commercial providers of Internet e-mail in the United States, and by far the largest to provide e-mail to the public for free.²

The Joint Board's *Recommended Decision* proposes that the Commission apply Section 254(h) of the Telecommunications Act of 1996, 47 U.S.C. § 254(h), to provide dis-

¹ *Federal-State Joint Board on Universal Service*, Recommended Decision, CC Docket No. 96-45, FCC 96J-3 (released Nov. 8, 1996) ("Recommended Decision").

² More information about Juno may be found at the firm's World Wide Web site <<http://www.juno.com>>.

counts on Internet access, including e-mail, for America's K-12 classrooms and libraries.³ The promotion of Internet access for schools has the potential to usher in a new era in informational and technological literacy and educational opportunity for American children. Juno firmly supports the policy objectives behind the *Recommended Decision* and agrees with most of the Joint Board's specific recommendations.

At the same time, Juno believes that the Commission should ensure the competitive neutrality of the *Recommended Decision* by clarifying that (1) schools and libraries are permitted to subscribe to free e-mail services, in lieu of or in addition to discounted Internet access accounts, and (2) Section 254(h)(1) telecommunications discounts can be applied by schools to offset the long-distance charges associated with reaching a "dial-up" number for their Internet access or e-mail provider. These changes would not provide any subsidy or other universal service support for Juno, but rather merely create a level playing field so that each school and library could arrange for the best, most cost-effective mix of Internet access and e-mail services that meets its specific needs.

I. FREE E-MAIL SERVICES OFFER SUBSTANTIAL ADVANTAGES OVER FEE-BASED E-MAIL FOR SCHOOLS AND LIBRARIES

E-mail is by far the most widely used Internet application, and for millions of Internet users represents their exclusive or predominant use of the Internet. E-mail is currently used by more than 50 million people worldwide (approximately twice as many as use the World Wide Web) and is rapidly becoming an indispensable communication tool. Juno believes that it is important for all American students to have equal access to this most fundamental Internet tool. Juno therefore strongly supports the Joint

³ *Recommended Decision*, ¶ 463

Board's conclusion that Internet access for K-12 schools and libraries must include e-mail services. *Recommended Decision*, ¶ 463.

The traditional model of Internet e-mail is fee-based; to use e-mail, one must generally purchase a bundled package of online tools, applications, and services, typically for a monthly subscription fee of \$19.95 per user "account." E-mail is one part of these Internet access packages, along with other components such as World Wide Web access, access to Usenet newsgroups, and file transfer tools. An individual or entity that wants to use only e-mail has historically been required to buy the entire package. Internet subscription packages are widely available commercially from both Internet Service Providers ("ISPs"), such as Netcom Online Services and AT&T WorldNet, and Online Service Providers ("OSPs"), such as America Online and CompuServe.⁴

Juno has a fundamentally different business model. Like ISPs and OSPs, Juno allows its subscribers to exchange e-mail with anyone in the world who has an e-mail address that can be reached over the Internet -- including the millions of people who subscribe to ISPs and OSPs -- but unlike these traditional e-mail providers, Juno charges its subscribers no fees of any sort. Subscribers receive a copy of Juno's free "client" software for their Windows-compatible personal computer, and then use a modem to dial into one of Juno's more than 400 local access telephone numbers nationwide. Juno assumes the cost of the underlying telecommunications connectivity, except for the price (if any) of the user's phone call to his or her local access number.

⁴ OSPs differ from ISPs in that, in addition to providing "direct" connectivity to the global Internet, they generally provide original content, database tools, and facilities for real-time communication accessible only to members of a particular OSP's service. America Online is the largest OSP in the United States.

For schools, free e-mail services offer several important advantages over fee-based alternatives. First, while each student at a school should have his or her own individual e-mail address, it is not necessary to provide each student with a separate account for World Wide Web access. If every student receives a free e-mail account from a service such as Juno, the school could arrange for access to the Web by establishing one full Internet access account for every five, ten, or twenty students. This will permit schools to conserve their limited resources for the other substantial expenses that connecting classrooms to the Internet entails, such as computer hardware, system maintenance, and instructor training, *see Recommended Decision*, ¶ 507, and will enable the Commission to apply its limited universal service subsidy funds more broadly, accelerating the “wiring” of all American classrooms for Internet access.

Second, free e-mail accounts may be used not only on school premises but off-site as well, by students, teachers, and parents with access to a personal computer either at home, at work, or in some other environment, without requiring that they each purchase an individual Internet access subscription at a cost of around \$250 per year. Free e-mail thus allows students to remain “connected” regardless of their physical location and makes it possible for teachers and parents to communicate electronically, creating opportunities for greater involvement and interaction by all parties.

Third, the use of a free e-mail service frees a school to exercise more flexibility in its selection and ongoing reevaluation of Internet access options than would be possible if both e-mail and other components of Internet access came bundled from the same provider. If a school purchases its students’ e-mail from an ISP or OSP, it cannot switch to a different ISP or OSP without undertaking the mammoth and greatly inconvenient

task of changing all its students' e-mail addresses, a process that requires all affected students to notify the dozens or hundreds of people with whom they correspond by e-mail of the address change. (There is presently no automatic system for announcing a change of e-mail address, meaning that painstaking correspondent-by-correspondent notification is necessary. Even with such notification, one can expect some amount of lost e-mail.) The considerable inconvenience of changing all of its students' e-mail addresses might be enough to convince a school not to switch access providers, even if a different ISP or OSP would be expected to provide improved service at lower rates.

By contrast, there is no inconvenience associated with switching World Wide Web access providers (or providers of other Internet services) where free e-mail is involved, because e-mail and Internet access are not provided by the same firm. If a school gets its students' e-mail addresses from Juno, changing Web access providers becomes a simple matter, not requiring a change in e-mail addresses. Consequently, the use of a free e-mail service could afford schools the freedom to exercise discretion and selectivity in choosing access providers and might be expected to be a procompetitive influence on the Internet access market.

All of these advantages do not mean that free e-mail is the only solution for K-12 schools and libraries. Some schools might opt to purchase and operate Internet mail servers on their local area networks, in effect operating as their own e-mail providers. Some might have equipment that is incompatible with the current version of the Juno software. Others may decide that the added costs (economic and otherwise) associated with fee-based e-mail are counterbalanced by other benefits. The advantages of free e-mail, however, are considerable, and free e-mail is one option schools ought to have

available to them, ought to be made aware of, and ought not to be discouraged from using. The Commission must ensure that its policies regarding e-mail are applied in a competitively neutral manner as between free and fee-based services, and should clarify that schools and libraries are not precluded from using a free e-mail service such as Juno.

The Joint Board recommends that the Commission provide discounts for Internet access for schools and libraries, and Juno fully supports this recommendation. However, subsidizing the use of fee-based e-mail when free e-mail is available could dissipate the limited resources available for achieving the Commission's goals. While large, the \$2.25 billion earmarked yearly by the Joint Board only begins to scratch the surface of the massive financial requirements associated with equipping schools with Internet access. To the extent that free e-mail services can supply some of the schools' needs, the Commission should foster the use of such services and conserve its resources for covering the costs of other forms of access, and related expenses, which are not already available in the market for free. This is a key part, Juno believes, of the "full flexibility among telecommunications services" the Joint Board has recommended for schools and libraries. *Recommended Decision*, ¶ 461.

The Commission's decision should, at the very least, clarify that schools are not *precluded* from using free e-mail services. The choice should be left to schools and the marketplace, and not dictated by Commission regulations. One other approach the Commission might consider is to permit schools, if they choose, to request "unbundled" Internet access pricing from ISPs and OSPs during the competitive bidding process. While, as noted, the market trend in Internet access today is to offer a package of e-mail

and other Internet services to subscribers, schools may decide that they prefer to "mix-and-match" free e-mail from Juno or another provider with Web-only access from an ISP or OSP. While Juno does not believe that the federal government should require ISPs and OSPs to unbundle their prices, if the demand exists in the K-12 marketplace for such unbundled offerings, the Commission's universal service regulations ought not to be a barrier. Juno therefore suggests the Commission clarify that schools and libraries can request unbundled Internet access and e-mail pricing for purposes of Section 254(h).

II. THE FCC SHOULD PROMOTE EFFICIENT USE OF UNIVERSAL SERVICE FUNDS BY PROVIDING DISCOUNTS ON LONG-DISTANCE "DIAL-UP" CHARGES TO SCHOOLS AND LIBRARIES

One example of a cost which the Commission should subsidize, in part because it often affects most harshly those schools most in need of assistance, is the cost of linking a school's computers and the nearest access number of an ISP, OSP, or free e-mail service. In many (although a decreasing number of) rural and remote school districts, schools must pay long-distance toll charges to reach their chosen Internet or e-mail providers.

The Commission should clarify that discounts for telecommunications services available to schools and libraries under Section 254(h)(1)(B) can be applied to long-distance charges associated with reaching the "dial-up" access numbers of ISPs, OSPs, and free e-mail providers. Whether applied to calls made to reach fee-based or free e-mail providers, such toll discounts would be competitively neutral -- indeed, the funds involved would be paid to the schools' interexchange or other toll carriers, not to the e-mail providers. Toll discounts are also an important aspect of competitive neutrality because they would help assure that smaller Internet access providers, who do not have

as many local access numbers as major nationwide providers, can compete on an even basis for the opportunity to supply K-12 Internet access. By making long-distance telephone charges eligible for universal service support when used to reach an e-mail or other Internet access provider, the Commission will simultaneously assure competitive neutrality and alleviate the relatively higher costs borne by rural classrooms in connecting to the Internet.⁵

The *Recommended Decision* addresses this issue in Paragraph 464, where the Joint Board rejects subsidizing 100 percent of the cost of dedicated (*e.g.*, private line) connections between schools and ISPs. The issue for dial-up access is quite different, however. Unlike the dedicated ISP-provided connections discussed by the Joint Board, toll charges incurred to reach an ISP, OSP, or e-mail provider on a dial-up basis are paid to an interexchange telecommunications carrier, *not* the Internet access provider. The Commission does not need to “single out the transmission component of Internet access” to subsidize these toll expenses, *id.*, because they are the ordinary long-distance rates paid by schools for both voice and data communications, rather than a component of Internet access services. In the health care area, the Joint Board recommended that the Commission “seek information on the rate of expansion of local access coverage for ISPs in rural areas of the country and the costs likely to be incurred in providing toll-free access to ISPs and take these assessments into account” in deciding the scope of Section 254(h) discounts. *Recommended Decision*, ¶ 669. At the very least, this same

⁵ Juno provides more than 400 local access numbers nationwide, minimizing the circumstances in which users need to make a toll call to reach the Juno service. Juno’s free e-mail service also has substantially shorter average holding times (on the order of one minute) than ISPs and OSPs. Many ISPs and OSPs provide fewer local access numbers than Juno, and all have much longer average connection times.

attention and study needs to be given to the long-distance charges paid by rural and remote schools to reach an Internet or other e-mail provider.

CONCLUSION

The Commission should adopt the Joint Board's recommendation that Internet access for K-12 schools and libraries be discounted under Section 254(h) of the 1996 Act. The Commission should ensure competitive neutrality in its universal service policies on e-mail by permitting schools and libraries to utilize either bundled, fee-based e-mail or free Internet e-mail. Furthermore, the Commission should focus on eliminating inequitable telecommunications costs currently borne by schools and students in remote areas, who have to pay long-distance toll charges to reach the closest local point of presence of their chosen ISP, OSP, or free e-mail provider.

Respectfully submitted,

By: 

Jeffrey Blumenfeld

Glenn B. Manishin

Michael D. Specht, Technical Consultant

Blumenfeld & Cohen - Technology Law Group

1615 M Street, N.W., Suite 700

Washington, D.C. 20036

202.955.6300

202.955.6460 fax

Counsel for Juno Online Services, L.P.

Dated: December 24, 1996.

CERTIFICATE OF SERVICE

I, Cindy Miller, do hereby certify on this 24th day of December, 1996, that I have served a copy of the foregoing document via first class mail, postage prepaid, to the parties on the attached service list.


Cindy Miller

The Honorable Reed E. Hundt
Chairman
Federal Communications Commission
1919 M Street, NW
Room 814
Washington, DC 20554

The Honorable Susan Ness
Commissioner
Federal Communications Commission
1919 M Street, NW
Room 832
Washington, DC 20554

The Honorable Kenneth McClure
Vice Chairman
Missouri Public Service Commission
301 W. High Street
Suite 530
Jefferson City, MO 65102

The Honorable Laska Schoenfelder
Commissioner
South Dakota Public Utilities Commission
500 E. Capital Avenue
Pierre, SD 57501

Lisa Boehley
Federal Communications Commission
2100 M Street, NW
Room 8605
Washington, DC 20036

Charles Bolle
South Dakota Public Utilities Commission
State Capital - 500 E. Capital Avenue
Pierre, SD 57501

John Clark
Federal Communications Commission
2100 M St., NW, Room 8619
Washington, DC 20554

The Honorable Rachelle B. Chong
Commissioner
Federal Communications Commission
1919 M Street, NW
Room 844
Washington, DC 20554

The Honorable Julia Johnson
Commissioner
Florida Public Service Commission
Capital Circle Office Center
2540 Shumard Oak Boulevard
Tallahassee, FL 32399

The Honorable Sharon L. Nelson
Chairman
Washington Utilities and Transportation Commission
P.O. Box 47250
Olympia, WA 98504

Martha S. Hogerty
Public Counsel for the State of Missouri
P.O. Box 7800
Harry S. Truman Building
Room 250
Jefferson City, MO 65102

Deonne Bruning
Nebraska Public Service Commission
300 The Atrium
1200 N Street
Lincoln, NE 68509

James Casserly
Federal Communications Commission
Office of Commissioner Ness
1919 M St. Room 832
Washington, DC 20554

Bryan Clopton
Federal Communications Commission
2100 M St., NW Room 8615
Washington, DC 20554

Irene Flannery
Federal Communications Commission
2100 M St., NW, Room 8922
Washington, DC 20554

Daniel Gonzalez
Federal Communications Commission
Office Commissioner Chong
1919 M Street, NW, Room 844
Washington, DC 20554

Emily Hoffman
Federal Communications Commission
2100 M St., NW, Room 8623
Washington, DC 20554

L. Charles Keller
Federal Communications Commission
2100 M St., NW, Room 8918
Washington, DC 20554

Lori Kenyon
Alaska Public Utilities Commission
1016 West Sixth Avenue
Suite 400
Anchorage, AK 99501

David Krech
Federal Communications Commission
2025 M St., NW, Room 7130
Washington, DC 20554

Debra M. Kriete
Pennsylvania Public Utilities Commission
P.O. Box 3265
Harrisburg, PA 17105

Diane Law
Federal Communications Commission
2100 M St., NW Room 8920
Washington, DC 20554

Mark Long
Florida Public Service Commission
2540 Shumard Oak Boulevard
Gerald Gunter Building
Tallahassee, FL 32399

Robert Loube
Federal Communications Commission
2100 M St., NW, Room 8914
Washington, DC 20554

Samuel Loudenslager
Arkansas Public Service Commission
P.O. Box 400
Little Rock, AK 72203-0400

Sandra Makeeff
Iowa Utilities Board
Lucas State Office Building
Des Moines, IA 50319

Philip F. McClelland
Pennsylvania Office of Consumer Advocate
1425 Strawberry Square
Harrisburg, PA 17120

Michael A. McRae
DC Office of People's Counsel
1133 15th Street, NW
Suite 500
Washington, DC 20005

Tejal Mehtu
Federal Communications Commission
2100 M St, NW, Room 8625
Washington, DC 20554

Terry Monroe
New York Public Service Commission
Three Empire Plaza
Albany, NY 12223

John Morabito
Deputy Division Chief
2000 L St., NW, Suite 812
Washington, DC 20554

Mark Nadel
Federal Communications Commission
1919 M Street, NW
Room 542
Washington, DC 20554

John Nakahata
Federal Communications Commission
Office of the Chairman
1919 M St., NW, Room 814
Washington, DC 20554

Lee Palagyi
Washington Utilities and Transportation Commission
1300 South Evergreen Park Dr., S.W.
Olympia, WA 98504

Kimberly Parker
Federal Communications Commission
2100 M St., NW, Room 8609
Washington, DC 20554

Barry Payne
Indiana Office of Consumer Counsel
100 North Senate Ave., Room N501
Indianapolis, IN 46204-2208

Paul E. Pederson
State Staff Chair
Missouri Public Service Commission
P.O. Box 360
Truman State Office Building
Jefferson City, MO 65102

Jeanine Poltronieri
Federal Communications Commission
2000 L Street, NW
Room 257
Washington, DC 20036

James Bradford Ramsay
National Association of Regulatory Utility Comms.
1201 Constitution Avenue, NW
Washington, DC 20036

Brian Roberts
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Gary Seigel
Federal Communications Commission
2000 L Street, NW
Room 812
Washington, DC 20036

Richard Smith
Federal Communications Commission
2100 M St., NW, Room 8605
Washington, DC 20554

Pamela Szymczak
Federal Communications Commission
2000 L Street, NW
Room 257
Washington, DC 20554

Lori Wright
Federal Communications Commission
2100 M St., NW, Room 8603
Washington, DC 20554

ITS
2100 M Street, NW
Suite 140
Washington, DC 20036

Allen P. Stayman
U.S. Department of the Interior
Office of the Secretary
Washington, DC 20240

Alan Dinsmore
American Foundation for the Blind
1615 M Street, NW
Suite 250
Washington, DC 20036

Paul W. Schroeder
American Foundation for the Blind
401 N. Michigan Avenue
Suite 308
Chicago, IL 60611

Kweisi Mfume
NAACP
4805 Mt. Hope Drive
Baltimore, MD 21215

Norman D. Rasmussen
Colorado Independent Telephone Association, Inc.
3236 Hiwan Drive
Evergreen, CO 80439

Gina Harrison
Pacific Telesis
1275 Pennsylvania Avenue, NW
Suite 400
Washington, DC 20004

Robert C. Maier
Paul J. Kissman
Massachusetts Board of Library Commissioners
648 Beacon Street
Boston, MA 02215

Ted Schultz
Nebraska Association of Hospitals and Health Sys.
1640 L Street
Suite D
Lincoln, NB 68508

Thomas E. Sheldon
University of New York/Albany
The New York State Education Department
Albany, NY 12234

Joe Dudick
Pennsylvania Rural Development Council
Room 506 Finance Building
Harrisburg, PA 17120

Lawrence C. St. Blanc
Gayle T. Kellner
Louisiana PSC
P.O. Box 91154
Baton Rouge, LA 70821

Cathy J. Quinn
Associated Comms. & Research Services, Inc..
817 NE 63rd Street
Oklahoma City, OK 73105

Kenneth Sofferahn
James A. Burg
South Dakota PUC
500 East Capitol Avenue
Pierre, SD 57501

Karen Finstad Hammel
Montana PSC
1701 Prospect Avenue
P.O. Box 202601
Helena, MT 59601

Maggie Murphy
STAR Program
300 Centennial Building
658 Cedar Street
St. Paul, MN 55155

Governor William J. Janklow
State of South Dakota
State Capitol
500 East Capitol
Pierre, SD 57501

Jim Williams
The Federation of American Research Networks
1112 16th Street, NW
Suite 600
Washington, DC 20036

Philip L. Verveer
Brian A. Finley
Willkie Farr & Gallagher
Three Lafayette Centre
1155 21st Street, NW
Washington, DC 20036

Adrienne G. Southgate
State of Rhode Island and Providence Plantations
Public Utilities Commission
100 Orange Street
Providence, RI 02903

Edward H. Salmon
State of New Jersey Board of Public Utilities
CN-350
Trenton, NJ 08625

Kathleen F. O'Reilly
The Michigan Consumer Federation, etal
414 A Street, SE
Washington, DC 20003

Nancy Zussy
Washington State Library
P.O. Box 42460
Olympia, WA 98504

Jeff Beck
Beck & Ackerman
4 Embarcadero Center
Suite 760
San Francisco, CA 94111

Kent Nilsson
Federal Communications Commission
2000 L Street, NW
Room 812-1600E
Washington, DC 20554

Virginia J. Taylor
Richard A. Elbrecht
California Department of Consumer Affairs
400 R Street
Suite 3090
Sacramento, CA 95814

Amy E. Dougherty
Kentucky PSC
P.O. Box 615
Frankfort, KY 40602

Cheryl L. Parrino
Wisconsin PUC
610 North Whitney Way
P.O. Box 7854
Madison, WI 53707

William B. Hill
Keystone-Arthur Telephone Company
P.O. Box 240
Keystone, NE 69144

Robert D. Carlitz
Information Renaissance
600 Gran Street
Suite 4680
Pittsburgh, PA 15219

John E. Cawthorne
National Urban League
106 Campion Hall
Boston College
Chestnut Hill, MA 02146

Albert Vann
New York State Assembly
Legislative Office Building
Suite 422
Albany, NY 12248

Stuart Blake
Kinko, Inc..
World Headquarters
255 West Stanley Avenue
Ventura, CA 93002

Ellis Jacobs
Legal Aid Society of Dayton
333 West First Street
Suite 500
Dayton, OH 45402

Gary Meissner
Oakland Unified School District
1025 Second Avenue
Oakland, CA 94606

Jeffrey P. Johnson
Library of Michigan
717 W. Allegan Street
Lansing, MI 48909

Dennis L. Bybee
International Society for Technology in Education
USA National Office
P.O. Box 4437
Alexandria, VA 22303

Kevin Starr
California State Library
Library Court Building
P.O. Box 942837
Sacramento, CA 94237

Laura L. Wilson
Florida Cable Telecommunications Association
310 North Monroe Street
Tallahassee, FL 32301

William J. Tobin
Early Childhood Development Center Legislative
Coalition
3612 Bent Branch Court
Falls Church, VA 22041

Patrice McDermott
Information Policy Analyst
OMB WATCH
1742 Connecticut Avenue, NW
Washington, DC 20009

Fiona Branton
Information Technology Industry Council
1250 Eye Street, NW
Washington, DC 20005

Alison M. Hughes
The University of Arizona Health Sciences Center
2501 East Elm Street
Tucson, AZ 85716

P. Kenneth Komoski
The LINCT Coalition
466 Pleasant Street
Melrose, MA 02176

David J. Strom
American Federation of Teachers
555 New Jersey Avenue, NW
Washington, DC 20001

Mary Ellen Emmons
Alaska Library Association
P.O. Box 81084
Fairbanks, AK 99708

Missouri State library
P.O. Box 387
Jefferson City, MO 65102

Robert C. Heterick, Jr.
Educom
1112 16th Street, NW
Suite 600
Washington, DC 20036

Robert Bocher
Wisconsin Department of Public Instruction
125 South Webster Street
Madison, WI 53702

B. Robert Piller
Gerald A. Norlander
Public Utility Law Project of New York, Inc..
39 Columbia Street
Albany, NY 12207

Benjamin Perez
Gerald M. Zuckerman
Mark J. Becker
Abacus Communications Co.
1801 Columbia Road, NW - Suite 101
Washington, DC 20009

Robert R. Katz
Peter F. Harter
Netscape Communications Corp.
487 East Middlefield Road
Mountain View, CA 94043

Jeffrey C. Ogden
Merit Network
4251 Plymouth Road
Ann Arbor, MI 48105

Tom Udall
Richard Weiner
New Mexico Attorney General's Office
P.O. Box Drawer 1508
Santa Fe, NM 87504

Ronald L. Plesser
James H. Halpert
Mark J. O'Connor
Piper & Marbury, LLP
1200 19th Street, NW - Seventh Floor
Washington, DC 20036

Carol C. Henderson
American Library Association
1301 Pennsylvania Avenue, NW
Suite 403
Washington, DC 20004

Robert D. Collet
Commercial Internet Exchange Association
1751 Pinnacle Drive
Suite 16000
McLean, VA 22102

Richard W. Riley
U.S. Secretary of Education
600 Independence Avenue, SW
Washington, DC 20202

David Price
California Library Association
717 K Street
Suite 300
Sacramento, CA 95814

Joseph A. Spagnolo
Illinois State Board of Education
Springfield, IL 62777

David Pierce
American Association of Community College
One Dupont Circle, NW
Suite 410
Washington, DC 20036

Ray Taylor
Association of Community College Trustees
1740 N Street, NW
Washington, DC 20036

Martin Avery
Navajo Nation
1101 17th Street, NW
Suite 250
Washington, DC 20036

J.D. Williams
Cheyenne River Sioux Telephone Authority
100 Main Street
Eagle Butte, SD 57625

William E. Stanton
National Emergency Number Association
P.O. Box 1190
Coshocton, OH 43812

L. Jerry Mitchell
Blountsville Telephone Co., Inc..
P.O. Box 1049
Blountsville, AL 35031

Ronald K. Greenhalgh
National Rural Electric Cooperative Association
4301 Wilson Boulevard
Arlington, VA 22203

Margo Crist
Michigan Library Association
University of Michigan
818 Hatcher South
Ann Arbor, MI 48109

Anne Wendler
Lincoln Trail Libraries System
1724 W. Interstate Drive
Champaign, IL 61821

Nancy J. Sharp
Timothy P. Cox
American College of Nurse Practitioners
2401 Pennsylvania Avenue, NW
Suite 350
Washington, DC 20037

Richard A. Finnigan
Oregon Independent Telephone Association
2405 Evergreen Park Drive, SW
Suite B-01
Olympia, WA 98502

Donald L. Howell, II
Idaho PUC
P.O. Box 83720
Boise, ID 83720

Chris Frentrup
MCI
1801 Pennsylvania Avenue, NW
Washington, DC 20006

U.S. National Commission on Libraries and
Information Science
1110 Vermont Avenue, NW
Suite 820
Washington, DC 20005

James T. Coyle
Shawnee Telephone Co.
P.O. Box 69
Equality, IL 62934

Adam Truner
Commonwealth of Northern Marianas
2121 R Street, NW
Washington, DC 20006

Ronald A. Gagon
NOBLE
26 Cherry Hill
Danver, MA 01923

David F. Hemmings
Brite Voice Systems, Inc..
7309 East 21st Street North
Wichita, KS 67206

Mitchell Sprague
Kenneth Matheson
Doris Hammer
Mendocino Unified School District
P.O. Box 1154
Mendocino, CA 95460

Jeffrey P. Folsom
Southwest Montana Telepsychiatry Network
50 S. Last Chance Gulch
Helena, MT 59601

Dena S. Puskin
Office of Rural Health Policy
5600 Fishers Lane
Room 9-05
Rockville, MD 20857

David A. Kennedy
Dennis Small
Instructional Resources
Old Capitol Building
P.O. Box 47200
Olympia, WA 98504

John G. Strand
John C. Shea
State of Michigan PSC
6545 Mercantile Way
P.O. Box 30221
Lansing, MI 48909

Blossom A. Peretz
NJ Department of Treasury
31 Clinton Street - 11th Floor
P.O. Box 46005
Newark, NJ 07101

Encarnita Catalan-Marchan
Maria Pizarro-Figueroa
Telefonica Larga Distancia de Puerto Rico, Inc..
Metro Office Park
Building No. 8 - Street No. 1
Guaynabo, PR 00922

Ted Schultz
Nebraska Association of Hospitals and Health
Systems
1640 L Street
Suite D
Lincoln, NE 68508

Monroe E. Price
Benjamin N. Cardoza School of Law
Brookdale Center
55 Fifth Avenue
New York, NY 10003

Mark D. Wilkerson
Brantley & Wilkerson, PC
P.O. Box 830
Montgomery, AL 36101

Lynn C. Silver
Apple Computer, Inc..
1667 K Street, NW
Suite 410
Washington, DC 20006

Mark Savage
Stevan Rosenzweig
Carmela Castellano
Public Advocates, Inc..
1535 Mission Street
San Francisco, CA 94103

Bonnie Price
7027 Haverhill Park Road
Whittier, CA 90602

Chris Dalziel
Instructional Telecommunications Council
One Dupont Circle, NW
suite 410
Washington, DC 20036

Gayle T. Killner
Louisiana PSC
P.O. Box 91154
Baton Rouge, LA 70821

Kevin Taglang
Benton Foundation
1634 Eye Street, NW
Washington, DC 20006

Harold M. Thompson
Iowa Communications Network
P.O. Box 587
Johnston, IA 50131

Jim Williams
FARNET
1112 16th Street, NW
Suite 600
Washington, DC 20036

Carolyn Pucell
Department of Information Resources
P.O. Box 13564
Austin, TX 78711

Lee Green
High Plains Rural Health Network
218 East Kiowa Avenue
P.O. Box 575
Fort Morgan, CO 80701

Charles H. Carruthers, III
Hinton & Williams
951 East Byrd Street
Richmond, VA 23219

Danny E. Adams
Steven A. Augustino
Kelley Drye & Warren
1200 19th Street, NW
Suite 500
Washington, DC 20036

Robert A. Hart IV
Hart Engineers & CEO of 21st Century Telesis, Inc..
4615 North Boulevard
Baton Rouge, LA 70806

James R. Forcier
AirTouch Communications, Inc..
One California Street
San Francisco, CA 94105

Frank C. Torress, III
Washington Liasion Office of the Governor of Guam
444 North Capital Street
Washington, DC 20001

Norman Rasmussen
Colorado Independent Telephone Association
3236 Hiwan Drive
Evergreen, CO 80439

Charles H. Helein
Helein & Associates, PC
8180 Greensboro Drive
Suite 700
McLean, VA 22102

Curtis T. White
Allied Communications Group, Inc...
4201 Connecticut Avenue, NW
Suite 402
Washington, DC 20008

Brad E. Mutschelknaus
John J. Heitmann
Kelley Drye & Warren
1200 19th Street, NW
Suite 500
Washington, DC 20036

Catherine R. Sloan
Richard L. Fruchterman
Richard S. Whitt
Worldcom, Inc..
1120 Connecticut Avenue, NW - Suite 400
Washington, DC 20036

Robert F. Kelley, Jr.
Office of the Governor
P.O. Box 2950
Agana, Guam 96910

Howard Hunt
RIITA
P.O. Box 10
Dixon, IA 52745

Paul Hoff
Park Region Mutual Telephone Co.
P.O. Box 277
100 Main Street
Underwood, MN 56586

Scott L. Smith
Matanuska Telephone Assn.
1740 South Chugach Street
Palmer, AK 99645

J. Scott Searl
Baird, Holm, McEachen, Pedersen, Hamann &
Strasheim
1500 Woodmen Tower
Omaha, NE 68102

O. Lee Darrington
Rhonda R. Maun
Larry D. Brennan
Telec Consulting Resources, Inc..
909 North 98th Street - Suite 203
Omaha, NE 68114

Frank D. Richter
Fort Mojave Telecommunications, Inc..
P.O. Box 9879
4558 Highway 95
Suite 4
For Mojave, AZ 86427

Richard B. Bulman
Rural Telephone Finance Coop.
2201 Cooperative Way
Herndon, VA 22071

Jill A. Lesser
People for the American Way
2000 M Street, NW
Washington, DC 20036

Charles C. Hunter
Hunter & Mow, PC
1620 Eye Street, NW
Suite 701
Washington, DC 20006

Mel Engle
Fisher Wayland Cooper Leader and Zaragoza, LLP
2001 Pennsylvania Avenue, NW - Suite 400
Washington, DC 20006

L. Jerry Mitchell
P.O. Box 452
New Hope, AL 35760

Robert Clemons
Bledsoe Telephone Coop.
P.O. Box 609
203 Cumberland Avenue
Pikeville, TN 37367

Cynthia B. Miller
State of Florida PSC
Capital Circle Office Center
2540 Shumard Oak Blvd.
Tallahassee, FL 32399

Boyd D. Spiker
Rock Port Telephone Company
107 Opp Street
Rock Port, MO 64482

Angela J. Campbell
Ilene R. Penn
John Podesta
Georgetown University Law Center
600 NJ Avenue, NW
Washington, DC 20001

Bruce D. Jacobs
Glenn S. Richards
Theodore N. Stern
Fisher Wayland Cooper Leader and Zaragoza, LLP
2001 Pennsylvania Avenue, NW - Suite 400
Washington, DC 20006

Stephen G. Oxley
Wyoming PSC
700 West 21st Street
Cheyenne, WY 82002

Paul B. Jones
Janis A. Stahlhut
Donald Shephard
Time Warner Communications Holdings, Inc..
300 First Stamford Place
Stamford, CT 06902

Steve Hamlen
United Utilities, Inc..
P.O. Box 9-2730
Anchorage, AK 99509

Rachel B. Ferber
360 Communications Company
8725 Higgins Road
Chicago, IL 60631

Philip L. Malet
Alfred Mamlet
Steptoe & Johnson
1330 Connecticut Avenue, NW
Washington, DC 20036

Kenneth Lein
Winnebago Cooperative Telephone Assn.
704 East Main
Lake Mills, IA 50450

Michael Gallagher
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07120

Gene P. Belardi
Mobilemedia Communications
2101 Wilson Blvd.
Suite 935
Arlington, VA 22201

James Rowe
Alaska Telephone Assn.
4341 B Street
Suite 304
Anchorage, AK 99503

Richard M. Tettelbaum
Citizens Utilities Company
Eastern Region Telephone Operations
1400 16th Street, NW
Suite 500
Washington, DC 20036

Gene DeJordy
Christopher Johnson
Western Wireless Corporation
330 120th Avenue, NE
Suite 220
Bellevue, WA 98005

Marc A. Paul
Steptoe & Johnson
1330 Connecticut Avenue, NW
Washington, DC 20036

Joel B. Shifman
Maine PSC
242 State Street
Augusta, ME 04333

Emily M. Williams
Association for Local Telecommunications
Services
1200 19th Street, NW
Suite 607
Washington, DC 20036

David A. Irwin
Irwin Campbell & Tennenwald, PC
1320 18th Street, NW
Suite 400
Washington, DC 20036